How a Good Bidder Becomes a Good Target: The Case of Continental AG Acquiring Siemens VDO

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Abstract-**The acquisition of Siemens VDO by Continental AG in July 2007 represented the largest takeover transaction between automotive suppliers to date. This paper examines the motivation and background behind Continental's takeover of Siemens VDO and assesses the short- and long-term post-merger wealth effects of the transaction. By applying a combination of event and accounting study methodologies, we find that Continental is in fact a good bidder. In addition, we confirm the key performance drivers determined in preceding literature and provide a perspective on which M&A strategy results in long-term post-merger success within the industry.**

Keywords-automotive supply industry; mergers and acquisitions; case study; long-term success; Continental AG; Siemens VDO; bad bidder; good target

I. INTRODUCTION

On July 25, 2007, after almost half a year of weighing strategic and financial alternatives, the technology conglomerate Siemens AG agreed to sell its automotive supply division ("Siemens VDO Automotive") to the German-based automotive supplier Continental AG. At a value of 11.4 billion Euros (15.7 billion USD), this acquisition represented the largest in Continental's corporate history as well as in the automotive supply industry up to that date. The combined firm ranked among the five largest automotive suppliers in the world, in reach of the few industry leaders. From the perspective of its management board, entering into this significant transaction carried an opportunity not only to realize synergy potentials, but more importantly to meet industry trends by expanding Continental's market position, by increasing its innovative abilities and by balancing its product portfolio across multiple product segments [1]. At the time of its announcement, the deal appeared to be a reasonable strategy to prepare Continental for future market challenges.

However, one year after the deal announcement, the risk of unsuccessfully integrating the target and, hence, finally overpaying for the acquisition remained noticeable for the investor: Over the twelve months following the acquisition, Continental's share price dropped from 108.5 Euros to 73.0 Euros per share. Although Continental claimed to have paid a fair price for VDO, it realized a loss in market value of approximately 4 billion Euros within this one year time frame. Furthermore, Continental eventually became a target itself and was taken over by the German Schaeffler Group in August 2008. In the light of the originally positive public deal appraisal, this significant value loss in connection with the subsequent takeover raises the question whether Continental was in fact a 'bad bidder' predetermined to become a 'good target' [2]. This question calls for a comprehensive assessment of the overall merger success and its underlying determinants. We will mainly cover two research questions:

Was the Continental-Siemens VDO deal successful, namely Continental a good or a bad bidder?

Does the transaction help to enhance current prediction theory on M&A success factors?

For addressing these questions we explore the motivation and background behind Continental's takeover of Siemens VDO. Therefore we briefly give an overview on relevant literature of M&A key success factors and prediction theory. Then we compare the transaction motivation to realized market returns and accounting performance as well as to Continental's relative position in the market. Secondly, general key success factors as developed by preceding literature are validated and complemented with additional insights from the case study at hand.

The remainder of this paper is organized as follows: Section 2 provides a brief Overview of the relevant literature. Section 3 analyses the predominant market conditions as well as the transaction partners and transaction motivation. Section 4 contains the empirical assessment of the merger success including the short- and long-term capital market reactions to the deal announcement. In addition, it also provides an analysis of Continental's accounting performance over the 12 months following. Section 5 discusses the findings and concludes.

II. RELATED LITERATURE

The value creation potential of mergers and acquisitions has been extensively discussed in empirical finance literature. During the 1980s economists focused on value creation of

target companies and on a prediction theory which allows determining likely takeover targets. [3] suggests that companies with market underestimations in terms of low q ratios are more probable targets. [4] introduces a binomial logit model for predicting targets. While the prediction model was significant it could not confirm common hypotheses on probable targets. [2], who influenced the heading of the paper, questioned whether the market punishes bad acquisitions of bidders. They found that the probability of becoming a target is higher when companies lost a large proportion of equity value through bad acquisitions. However, in their assessment they focus on announcement date effects and do not specify relevant time spans. [5] question whether takeover targets generally underperform before acquisition. They cannot find clear evidence which would support this assumption. [6] extend the idea of market punishment and examine whether CEO's were replaced after bad acquisitions. Applied to the Continental-Siemens VDO deal the idea of market punishment raises the question whether Continental turned into a good target through significant equity losses.

However, the transaction success also depends on the underlying industry trends. Unlike other producing industries, the automotive supply industry provides a particularly challenging market environment to supply companies. On the one side, the pressure to produce better equipped and less expensive automobiles has created a growing trend towards specialization and internationalization among suppliers [7]. Following their original equipment manufacturers (OEMs), many suppliers are relocating their production facilities abroad to meet 'local-content'-requirements and circumvent customs [8]. On the other side, increasing prices for raw materials create an additional burden for the profit situation of automotive suppliers. As a result, many suppliers suffered from significant profit reductions of up to 50% in less than 2 years [9]. Under these conditions, investors seem to value M&A as a valuable response strategy: Acquirers are able to realize significant positive short-term returns as an expression of the global synergy and efficiency potential underlying the transactions [10].

Further research has also shown that suppliers are generally not able to sustain these returns beyond a short-term perspective. In the long-run, they fail to realize synergies and experience significant value losses from a capital market perspective [11] as well as performance losses in various performance indicators [12]. Only transactions involving national targets, non-diversifying product segments, significant deal size, and bidding experience of the acquirer partially mitigate the negative returns, yielding these characteristics as potential success factors. Since the Continental-Siemens VDO deal combines all of these attributes, Continental appears to be well prepared for long-term success in the industry. Consequently, the transaction is particularly relevant for further analysis in the course of this case study.

In this study we focus on publicly available data for analyzing the transaction success of the deal. In line with the theory, empirical evidence should confirm positive indications for long-term deal success. If those indications can be confirmed, the next step is to analyze why Continental AG turned into a target itself.

III. CASE STUDY BACKGROUND

A. General Overview of the Automotive Supply Industry

By 2007, consolidation efforts among automobile producers were well advanced and have created global revenue opportunities as well as an omnipresent global competition. Most obviously, this advanced consolidation becomes obvious in the total number of existing OEMs: [10] were able to identify 23 OEMs which are active or were active between the years 1981 and 2004. By contrast, the number of automotive suppliers is estimated significantly higher. In 2000, the CEO of Dana Corporation estimates the global number of tier-1 suppliers at approximately 9,000 [13]. Consequently, the level of consolidation is far lower for automotive suppliers than for their customers. Nonetheless, concentration tendencies significantly increased among suppliers over the last two decades. It is estimated, for example, that the number of direct suppliers in Europe dropped from 10,000 in the early 1970s to 3,000 in 1995 and to about 500 in the year 2000 [7].

Figure 1 emphasizes this consolidation activity and shows how a strong merger wave affects the automotive supply industry during the 1990s. Between 1991 and 1999, significant M&A transactions (with a transaction value of more than 50 million USD) have steadily increased both in number and in inflation-adjusted transaction volume. After the year 2000, the extent to which these transactions influence the industry appears to weaken in direct comparison to the 1990s. However, a closer look at the average transaction values reveals that they peaked three times over the last 30 years: once during an early consolidation wave in the 1980s, once during the merger wave of the 1990s and once just recently with the USD 15.7 billion transaction of Continental AG.

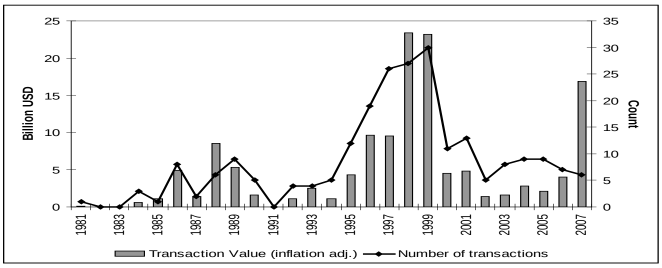

Fig. 1 Transaction Volume of Significant Deals (>50 Mio. USD) in the Automotive Supply Industry. Source: Thomson Datastream, [12], Own Calculations.

Besides a high level of capital intensity, a number of key industry trends and conditions promote this ongoing consolidation among suppliers.

The first group of trends relates to the relationship between the automotive suppliers and their customers, the automotive OEMs. With the globalization of the automobile industry, the OEMs are increasingly interested in sourcing supplies from the same supplier on a world-wide basis [7]. In order to meet their customer's demands regarding just-in-time delivery as well as local regulative requirements including customs and in-country quotas, the pressure on automotive suppliers to

create a costly global presence is growing. Wherever financially affordable, automotive suppliers are therefore following the international positioning of their customers either by geographical expansion or cross-border acquisitions [7, 8].

In addition, automotive producers have increasingly sought to outsource parts of their production facilities and to purchase full systems of components from their suppliers rather than individual parts [7]. While this development enables OEMs to reduce their coordination efforts to a few relationships with first-tier suppliers, it likewise increases the coordination efforts imposed on the supplier itself. As first-tier suppliers also outsource a growing part of their activities, first-tier suppliers are increasingly required not only to manage their customer demands down-stream, but also a growing number of lower-tier suppliers up-stream. At the same time, automotive producers are increasingly transferring product development tasks. While the producers' share of total product development resources averaged at around 70% in 1988, it dropped to approximately 60% ten years later [16]. As a result, suppliers are acquiring valuable production expertise and product development capabilities in order to be capable of delivering innovative products at high frequency. The closer a supplier is situated to the automobile producer in the supply chain, the higher its actual product development activity becomes [14].

The second group of main industry trends relates to the increasing competition among automotive suppliers: As producers are trying to source complete systems from a limited number of first-tier suppliers, supply companies develop an increasing tendency towards specialization on particular products or segments. As of today, some leading firms even became inseparably connected with particular systems or technologies [7]. Where this niche market strategy is successful, the level of competition is relatively low and leads to near-oligopoly domains. Continental Teves within Continental AG for brake systems and Siemens VDO for integrated dashboard systems are relevant examples for this case study. On the other hand, where specialization was not able to create a competitive edge, the particularly high number of suppliers creates a very strong competition and rivalry. This is the case, for example, in the leather and tire industries [17]. A last set of pressuring industry trends stems from the increasing prices for raw materials. Although the slowing US economy and the weak US Dollar offset some of the price effects on suppliers, especially for European and Asian companies, the majority of raw materials reached record prices in 2007. Over the year 2007, for example, the average price of crude oil rose by 11%, the price of processed metals increased by 9% and of natural rubber by 10%. The majority of other raw materials including copper, steel, and nickel experienced similar price increases with different volatilities [18]. In connection with the increasing pressure from customers and competitors, these costs for raw materials put a strong strain on the profit situation of automotive suppliers. As a result, many suppliers realized losses or significant profit reductions over the first years of this century. Between 2000 and 2002, for example, many suppliers suffered from significant profit reductions of up to 50% [9]. Given these challenging industry conditions, mergers and acquisition appear to be a valuable answer for automotive suppliers to offset some of the problems described.

B. The Transaction Partners

1) Continental AG

With an original focus on soft rubber products, rubberized fabrics, and solid tires for carriages and bicycles, Continental-Caoutchouc- and Gutta-Percha Compagnie was founded in Hanover, Germany in 1871. In a turbulent time period with two world wars Continental managed to become one of the leading rubber and tire producers in Germany.

In the 1970s, Continental started to combine its innovation-driven organic growth with an exploration of the increasing global market for mergers and acquisitions. At first, Continental focused on internationalizing its purely German tire business. By acquiring the European tire activities of American Uniroyal Inc. in 1979 and the Austrian-based Semperit in 1985, Continental made its first move into the European tire market. Two years later, the company entered the North American market by acquiring US-based General Tire.

Continental’s management decided to reduce the strong dependency on the tire business segment which was exposed to strong competition. Therefore, acquisitions focused rather on product diversification then on internationalization of the existing tire business.

In 1998, Continental managed to become a leading brake and chassis specialist by acquiring the Automotive Brake & Chassis division from ITT. By acquiring Phoenix AG in 2004, Continental was able to complete the reorganization of its industrial product lines under the brand 'ContiTech' and thereby create an internationally competitive position in the hose and conveyor belts market. With the acquisitions of Temic Microelectronic GmbH in 2001 and Motorola's automotive electronics business in July 2006, Continental not only extended once again its product portfolio into vehicle electronics, but also underlined its frequently-proven acquisition capabilities.

At the time of the Siemens VDO-takeover, Continental was considered Europe's second largest automotive supplier. With revenues of EUR 14.9 billion, it was able to generate an EBIT-margin of 10.8% in 2006, namely EUR 1.6 billion in earnings. Being active in 37 countries, the company operated more than 100 production and research facilities. A total of 85,224 employees worked in one of the four business divisions Automotive Systems, Passenger and Light Truck Tires, Commercial Vehicle Tires and ContiTech. In terms of revenue contribution, the Automotive Systems and Passenger Tire divisions represented the strongest divisions with 40% and 32% contribution respectively. Commercial Tires represented the smallest unit with 10% revenue contribution; the remaining 18% originated from the ContiTech products. While the earnings contribution generally followed the same pattern, the Commercial Vehicle division represented a positive outlier generating the largest profit with EUR 651 million, or 41% of Continental's total EBIT [20].

Supported by the records of its divisions, Continental realized an outstanding financial performance in its fiscal year 2006. For the fifth time in a row, it was able to grow sales and earnings on a year to year basis: compared to 2005, sales increased by 5.8%, earnings by 6.3%. The resulting cash flows enabled Continental to propose a 100% increase in dividends per share in the following shareholders' meeting. Continental's balance sheet benefited from its performance as leverage could be decreased to a gearing ratio of 25% [20]. However, the outlook on Continental's future performance is also influenced by a number of challenges confronting the company at the time. First of all, a deleveraged balance sheet as exhibited by Continental in 2006 also carried the disadvantage of increasing the company's attractiveness for financial investors. In summer 2006, a first private equity firm assessed a potential public takeover bid but withdrew at an early stage [20].

Secondly, Continental largely depends on raw materials such as natural rubber and oil. With raw material prices rising, Continental suffered a strong negative earnings impact of EUR -316 million between 2005 and 2006. At the same, automotive manufacturers expected their suppliers to decrease prices by 3 to 5% annually [20]. With 61% of its sales originating from automotive OEMs, Continental is therefore facing significant reductions of its profit margin over the coming years while the pressure from both sides of the supply chain continues. In addition, the 2006 business model of Continental was still strongly focused on European markets. All business units realized more than 50% of their sales within Europe; the Passenger Tire division even sold 72% of their products within its home continent. As the whole industry becomes increasingly global, decreasing the regional focus could determine future success as a whole. And lastly, as Continental has acquired a number of significant targets over the last years, it is still heavily engaged in post-merger integration efforts of different acquired targets, especially its 2006 Motorola electronics division.

In response to these challenges, the management board has focused its 2007 strategy on a number of key objectives. Besides on-going research activities and fostering innovations, Continental also actively seeks acquisition targets to continue growing at a constant rate. As a side effect, a potential acquisition also enables the company to rebalance its financing structure and to protectively increase debt levels. To reduce dependencies on single markets and customers, Continental tries to expand its product range and find complementary businesses around their present segments. In addition, the company continuously increases its production at low-cost sites and explores alternative raw material sources in order to ease the pressure on its profit margin [20].

2) Siemens VDO Automotive

Siemens VDO Automotive originally emerged from a merger between Mannesmann VDO and Siemens AG's automotive branch ('Siemens Automotive') in 2001.

The foundation of VDO's initial success lies in the invention of a speed-measuring device for automobiles, the tachometer. With a number of significant innovations including the electronic cruise control, the first quartz clock within a cockpit, and the central information system, VDO not only managed to continue growing but also established itself as a leading producer of car dashboards. In 1991, Mannesmann AG took over the majority shareholding of the so far independent VDO Adolf Schindling AG and acquired complete ownership three years later. In 2001, the merger of Mannesmann VDO and Siemens Automotive in 2001 created a global market leader in the field of automotive electronics and mechatronics.

In 2006, Siemens VDO Automotive represented one of eleven operative business units held by Siemens AG. With EUR 10.0 billion in revenues, the division accounted for approximately 11.5% of Siemens' total revenues and realized a profit margin of 6.7%, namely EUR 669 million [21]. A total of 53,000 employees worked in 14 different product divisions ranging from gasoline and diesel systems (powertrain), over infotainment and radio navigation (interior electronics) to safety electronics and electric motor drives (safety and chassis). Especially in the field of navigation, radio and surround sound, Siemens VDO developed a significant development edge in future trend technologies. Examples of first successes in emerging technologies include the HD Radio, a satellite radio, and rear-sear entertainment systems [22].

The high degree of innovativeness in connection with its broad product range enabled Siemens VDO to grow revenues and earnings in the past. Compared to 2005, the company increased revenues by 4.2% in 2006; earnings grew by 6.2% over the same period. While this development is generally in line with the development of the industry and its competitors (see Continental above), it still decreased in comparison with 2005 growth numbers and fell behind the overall performance of Siemens AG: Overall, Siemens was able to increase revenues by 15.7% and earnings by 10.4% in 2006. This relative underperformance could potentially be one reason why Siemens decided to pursue a new strategy "Fit4More" in 2005: following this program, opportunities for taking the automotive division public were assessed in order to re-focus on its core competences [23]. At the same time, while being active in the same industry as Continental, Siemens VDO was also exposed to similar threats. Consequently, the management strategically focused its resources on an increase in R&D expenditures and introduced a cost reduction program. It divested a number of joint ventures in the US and Europe in order to focus resources. Going forward, staying innovative and continuously producing new products was to remain its main strategic focus [21].

C. Transaction Motives

In order to determine the overall success of the Continental-Siemens VDO takeover, it makes sense to compare the original motivation behind the analyzed transaction with the realized capital market and performance gains or losses. In general, value-creating motives are associated with either synergy or efficiency gains [24]. While efficiency gains can be realized by a stand-alone entity without engaging in M&A activity, synergy gains can exclusively be realized through a combining transaction. Therefore, our analysis of the transaction motivation behind the VDO-takeover focuses on the synergy motives, both on the revenue as well as on the cost side. In addition, since the takeover at

hand was initiated and mainly driven by the acquirer Continental, and since the amount of publicly available background information on Siemens-VDO as an integrated division of Siemens AG is limited, the following section focuses on the buy-side motivation for buying Siemens' automotive business.

Immediately after the deal announcement on July 25th, Continental launched an integration program entitled "winning the future – together." In the eyes of the acquirer, this slogan described the intended flexibility, creativity and performance orientation for successfully integrating VDO into the Continental organization [18]. However, the slogan also appears to point out a strong interest in fostering former VDO strengths. For the acquirer, the target does not only yield potential for cost synergies but, likewise, a number of strong revenue synergies. Consequently, Continental communicated its intention to "add" these strengths to its existing organization as a partner rather than simply integrating them. With regard to revenue synergies, we were able to distinguish four main value drivers.

Complementary Product Portfolios – In 2007, Continental had identified three main technology trends which were to determine its future product sector priorities: an increasing strictness in emissions regulation (mainly CO_2-related), an accelerated flow of information within and between automobiles, and the convergence of active and passive safety systems towards integrated safety concepts [18]. Consequently, the company derived the three sectors Powertrain, Infotainment & Telematics, as well as Brake, Chassis & Safety Systems as its future business priorities. Before the VDO takeover, however, Continental had produced a significant product range in only one of the three sectors, namely the brakes and safety product sector; in the other two, it had obtained a mere presence while offering a few isolated products. The takeover of Siemens VDO enabled Continental to reposition itself as a market leader in all three of its future key segments as the product portfolios of both companies, with just a few exceptions, can be regarded as highly complementary.

In the Powertrain segment, for example, the deal complemented Continental's engine management and transmission control systems with a full array of VDO pumps, sensors and injection systems. With the addition, Continental was able to comprehensively address the problem of reducing emissions towards its customers as it afterwards supplied the majority of emission-related components. In Infotainment, the transaction carried a similar effect. VDO contributes the complete range of radio, navigation and sound systems which Continental needed to reach a higher connectivity with the control electronics it supplies within the car. Even in Continental's well-occupied safety arena, the takeover of VDO enabled the acquirer to gain access to further technologies such as 24 GHz radar sensors [22]. Altogether, the combined product portfolio after the takeover allowed Continental to further exploit the growing demand of its existing customers for pre-assembled systems while adhering to their efforts of reducing the number of supplier relations. At the same time, Continental could use its newly created market position to generate innovations and, thereby, could create industry standards which potentially provide access to further business with the OEMs [18].

Innovation Capabilities – Although they are closely related to the synergies from a complementary product portfolio, synergies from innovation capabilities positively affect Continental in two different ways. On one side, combining R&D facilities increases the level of innovativeness. As all engineers after the deal had access to a larger variety of different technologies in the three targeted product sectors, Continental aimed to increase the probability and frequency of developing more complex, standard-setting products while at the same time fostering economies of scope. On the other side, the combined R&D department also decreased the time to market of its innovations through increased development capacities. As automotive producers are increasingly outsourcing development activities to the suppliers, the ability to create standard technology platforms and offer development capacities to its customers becomes a key success factor for the supplier. "Acquiring" a large number of automotive engineers gives Continental the engineering capacity to approach additional customers [18].

Global Presence – By globally combining the research and production facilities of both companies, Continental also aimed at creating a stronger and more significant global presence towards its customers. This becomes apparent in the fact that the combined firm post-merger ranked among the largest five suppliers worldwide whereas the individual companies pre-merger ranked just in or below the global top ten in terms of sales to OEMs. This newly acquired size enabled Continental to counterbalance the strong US-American and Japanese competitors [22]. In addition, Continental also aimed for reducing the dependencies of its revenues on the European OEM markets. Through acquiring VDO, it attempted to emphasize its regional footprint in North America and Asia, potentially reaching additional local customers and creating new revenue potential [18].

Customer Access – Besides supplying a larger product variety to its existing customers, the takeover also provided Continental with an opportunity to gain access to new customers previously served by Siemens VDO. Given the limited number of existing automotive producers, gaining access to additional customers can significantly impact revenues. One main customer of VDO's electronic components was Hyundai Motor Corporation to which Continental could widen its brake system and tire businesses [25].

In addition to the described revenue synergies, the takeover of Siemens VDO also conveys significant cost synergies for the acquiring Continental. On the day of the deal announcement (July 25), Continental already presented synergy estimates amounting to a minimum of EUR 170 million per year as of 2010 [22]. A month later, Continental's management announced that these expected annual synergies carry upside potential [26] and by February 2008, estimates of the net synergy potential reached a sum between EUR 300 and 350 million [27].

Continental intended to realize these synergies from a number of different sources. First of all, although significant parts of the product portfolios were complementary, some

overlap between the two portfolios did exist and were estimated between 20 and 25 pct of total revenues [28]. By eliminating its redundant production capacities, the acquirer aimed to contribute significantly to the cost synergies without reducing revenues with its existing and newly acquired customers. Additional plant closures and staff reductions will further increase savings in personnel costs. Secondly, Continental also intended to consolidate its purchasing, administrative and research departments. After founding three new automotive divisions in its focus areas powertrain, infotainment, and safety, Continental has the opportunity to establish cross-divisional, centralized administrative functions representing additional contributions toward the cost synergy estimates above.

While all revenue and cost synergies presented above can generally be regarded as value-adding, the takeover of VDO also follows a number of additional strategic considerations with potentially ambiguous value effects. Among these considerations is the application of the VDO transaction as a general takeover defense. At the time of the takeover, Continental had already been approached by a potential investor, interested in taking advantage of Continental's deleveraged balance sheet structure. With a significant takeover such as VDO, Continental is able to leverage its capital structure and decrease the risk of becoming a takeover targets itself. Another potential transaction motive lies in the acquisition of engineering talent. Before the deal, Continental had been short of engineers employing approximately 7,000 employees with engineering degrees. By acquiring VDO, Continental was able to triple its engineering staff by adding an additional 12,000 automotive engineers from VDO [29]. And lastly, Continental's takeover motive could also stem from the ongoing competition with its largest national and global rival Robert Bosch. After the takeover of VDO, Continental not only converges towards Bosch in terms of total size, but also faces off its main rival in Bosch's core business of advanced fuel-injections systems [30].

D. The Acquisition Event

When Continental first announced its interest in Siemens VDO in January 2007, the news took Siemens' management board by surprise and provoked not more than a conservative acknowledgement among Siemens executives [31]. One reason for this reaction could lay in a misalignment of Continental's offer with the original plans Siemens management had for its automotive business: As early as 2005, Siemens had already decided to refocus its business portfolio on its core competencies and, thereby, to take its automotive business "Siemens VDO" public [23]. In early 2007, these floatation plans were restated more precisely in a way that Siemens wanted to float 25% of its VDO business unit but keep a majority stake in the long-term [31]. However, when Continental entered the market for Siemens' automotive business in the end of January, its offer started a six-month public bidding war that attracted a growing number of interested bidders and eventually led Siemens to withdraw from its original plans. Table 1 shows how the resulting takeover occurred in two major phases: the first one comprising a six-month bidding war until the final management decision on July 25th, and the second one focusing on preliminary integration measures preceding the final regulatory approval on December 5th.

Initiated by the first public announcement of Continental' interest in VDO on January 25th, the bidding war of phase 1 started uneventful: Given the large overlap in product segments between the two companies, Continental identified its business opportunity and announced interest in acquiring a stake of the soon-to-be spun-off Siemens VDO. On February 22nd, it underlined its potentially legitimate objectives by offering to accept industrial leadership over a majority stake in the equity [32]. However, the obvious synergy potentials between the two companies in connection with the positive track record of Siemens VDO soon attracted industry competitors and private equity firms into the competition. On March 6, it became public that TRW Automotive, a US-based competitor, majority owned by Blackstone, entered the competition setting the stage for an increasingly more eventful bidding war. Over the following three months, a number of other interested players were mentioned in the press including competitors as French Valeo (May 16th) and private equity firms KKR and Permira (May 23rd). At the same time, Siemens gave these bidders the run-around. Although it publicly delayed the planned IPO repeatedly, it also publicly refused an initial offer and an indicative bid of Continental as being non-competitive to the IPO strategy.

By June, after Siemens had repeatedly confirmed to adhere to its IPO plans, Continental indeed left communication channels with Siemens open but also assessed five other potential acquisition targets; public indications for a withdrawal from the deal arose. On July 4th, however, Siemens gave in and opened books for all remaining bidders who were still interested in buying its division. The only serious bidders remaining at that time were Continental and TRW Automotive, which both submitted competitive offers of more than EUR 10 billion by the official deadline three weeks later. On July 25th, with strong public support of German politicians and economists, the supervisory board of Siemens agreed to sell Siemens VDO to Continental for EUR 11.4 billion. As part of the deal, Continental received a tax credit of approximately EUR 1 billion. To finance the remaining amount, Continental planned on offering additional shares worth EUR 1.5 billion and taking on the larger part as debt

After both sides had approved the deal on July 25th, Continental did not lose time waiting for the official regulatory approval but quickly focused on integration issues and operative challenges. In phase 2 of the takeover, the acquirer used the time to quantify synergy and efficiency potentials. On July 29th, Continental confirmed that it did not accept binding job guarantees as part of the takeover deal. In August, it announced that the expected annual synergies of EUR 170 million were conservative with further upside potential. At the same time, it set its growth aspirations between 6 and 7% in the mid-term indicating that further takeovers are possible. In November, target profit margins of 10 to 12% followed and set the future development path of VDO. While increasing growth through synergies on the revenue side, Continental consequently aimed for realizing efficiency gains through plant closure and staff reductions. On December 5th, the European Antitrust Commission approved the deal and thereby

concluded the so far largest takeover in the a automotive supply industry.

TABLE I

OVERVIEW OF MILESTONES AROUND THE CONTINENTAL-SIEMENS VDO TRANSACTION

Date	Milestone
January 25	Continental publicly announces interest in acquiring Siemens VDO
February 22	Continental underlines its primary interest in industrial, not financial leadership
March 6	TRW Automotive joins bidding war for VDO
April 12	Siemens postpones the scheduled spin-off from May 1 to June 1
May 16	Siemens calls first Continental offer no competitive alternative to scheduled IPO Siemens mandates three investment banks to ready floatation Valeo/France expresses interest in acquiring VDO
May 23	Continental submits first indicative bid for Siemens VDO (estimated at EUR 10 billion) TRW Automotive, KKR and Permira submit competitive bids
May 25	Siemens rejects indicative offer and continues IPO preparations
June 1	Siemens confirms IPO for September 30
June 13	Continental continues talks with Siemens
June 22	Continental explores alternative acquisitions
July 4	Due Diligence starts; further proceedings to be decided on July 25
July 25	Siemens Supervisory board agrees to sell VDO to Continental for EUR 11.4 billion
August 5	Continental expects annual growth between 6 and 7% after the VDO takeover
August 24	Continental expects annual synergies from the deal to exceed EUR 170 million
October 30	Continental issues new shares worth EUR 1.48 billion
November 29	EU Commission approves the acquisition
December 5	Continental concludes the takeover transaction of Siemens VDO

Source: Factiva Press Database, Own Illustration

IV. ACQUISITION PERFORMANCE

A. The Capital Market Perspective

In order to evaluate the success of this significantly sized transaction, we follow the example of preceding case study research and analyze both share price information and available published accounting data [33]. At first, the following section focuses on the reaction of capital markets to the VDO transaction by analyzing the short- and long-term impact on Continental's share prices and corresponding returns. Therefore, the share price developments of Continental as the acquirer and Siemens as the seller are validated against abnormal returns in various time periods. In order to determine abnormal returns to shareholders, we apply a combination of different event study methodologies including the standard market model over short-term event-windows and the buy-and-hold abnormal return methodology using control-firms over a long-term horizon. As a result, this section provides a comprehensive overview of the absolute and relative value impact for the shareholders involved in the Siemens VDO takeover transaction.

As outlined in the previous section, the original takeover announcement took place on July 25th, 2007. Consequently, this date applies as the main reference point for the short- and long-term capital market analyses. However, Continental had already announced an interest in acquiring VDO about six months earlier, namely on January 25th. Therefore, it is assumed that the abnormal capital market reaction was partly included into the share price by July, in anticipation of the upcoming takeover event. To capture this anticipation and to provide an objective overview of the short-term value creation, short-term abnormal returns are also derived for the dates of Continental's first notion of intent (January 25th) and the following regulatory approval of the deal (December 5th). For the long-term analyses, on the other side, the focus lies on determining the continuous post-takeover return impact rather than short-term announcement reactions. Since potential anticipation effects become marginal with increasing time frames, the long-term perspective focuses on the announcement date in July as its reference point.

Short-term announcement returns are assessed using the event study methodology in connection with the standard market model as derived by [34]. As the return of the market portfolio within the model generally refers to a market index associated with the given securities over time, the German DAX-30 index applies as the corresponding market portfolio [35]. The market models are estimated by using Ordinary Least Squares (OLS) regression over a 200 trading day period starting at trading day t=-250 relative to the first public mention of the transaction, namely Continental's first announcement of its intention to acquire VDO on January 25th. On the basis of the estimated market model parameters, abnormal returns for both Continental AG as well as Siemens AG are derived for the three event dates described. i The longest event window is 41 days: T = [-20;+20] days, t=0 being the respective event date with regard to the transaction.

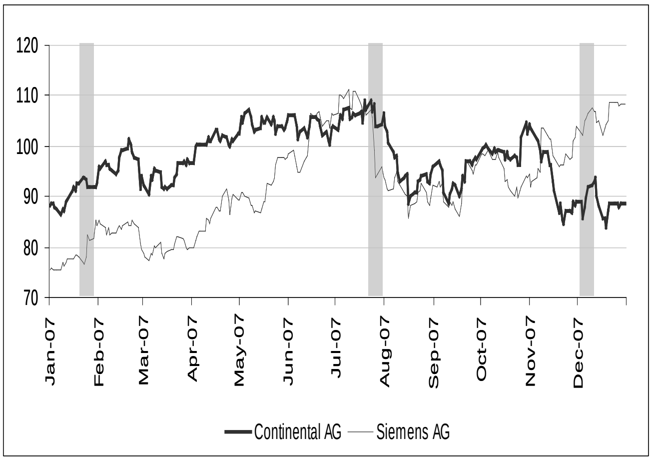

Fig. 2 Share Price Development (in EUR) of Continental AG and Siemens AG

From the share price development depicted in figure 2, it becomes apparent that especially Continental's initial

announcement of its acquisition intent induced the capital market reaction pattern normally observed for takeover events:ii Upon Continental's press release on January 25th, its share price dropped by -1.8% to EUR 91.77 while the share price of Siemens AG as the seller of Siemens VDO significantly increased by 5.8% to EUR 82.44. The capital market reaction may reflect the uncertainty about the outcome of the bid. A potential competitive bidding is a positive perspective for the target shareholders but includes the risk of overpaying for Continental.

However, this effect turned into the opposite upon the announcement of the deal six months later. On July 25th, Continental gained an additional 1.6% in share price while Siemens AG lost 6.2%. For Continental, this additional positive impact could be the expression of positively perceived synergies outweighing the now known takeover premium; the share price of Siemens decreased to a more moderate (but still increased) level after speculations about deal details had continuously increased its share price over the preceding 6 months. As a result, the original pattern was in fact reversed, but overall both participating parties seem to gain value over the 6 months of deal negotiations. Upon the deal completion, both acquirer and seller again react favorably and gain approximately 2% in market value.

This table shows the cumulative abnormal returns (CAR) to Continental AG and Siemens AG around three different event dates with respect to the Continental-Siemens VDO transaction. On January 25, Continental announced its interest in acquiring a stake in Siemens VDO. On July 25, both parties agreed on the deal terms and officially announced the takeover. Regulatory approval completed the transaction on December 5. Market models are estimated by using Ordinary Least Squares (OLS) regression over a 200 trading day period starting at trading day t=-250 relative to the first public mention of the transaction on January 25.

The short-term abnormal returns as presented by table 2 confirm this first positive assessment of the deal. Although Continental realizes a negative abnormal return of -1.27% upon the day of its first statement of interest, this negative reaction decreases in the longer event periods around the first event date: Over the 40 days surrounding January 25th, Continental realizes a positive abnormal return of 6.26%, over the twenty days after the announcement a positive 2.18%. This positive reaction stands in clear contrast to preceding findings on abnormal returns to acquiring companies which conclude that abnormal returns to acquirers are essentially zero [36] or negative [37]. However, the returns are in line with positive returns previously determined in the automotive supply industry: Positive announcement returns to acquirers represent the capital market's perception of extraordinary synergy potentials in the industry [10].

The positive reaction of Continental stock returns is again confirmed for the other two event dates: On July 25th, Continental realizes abnormal returns of 3.58%; upon deal completion in December, Continental shareholder's experienced an additional positive abnormal return of 0.92%. Although some negative abnormal returns are also existent for Continental especially on the day of the first mentioning in January and the days after the deal announcement on July 25, the abnormal returns in general remain positive and point toward a positive perception of the deal by capital markets as described above. At the three dates investigated here, investors appear to primarily perceive the inherent deal synergies as clearly outweighing the downside from overpaying for the acquisition. For Siemens AG, positive abnormal returns are mainly realized around the January and December announcement. It appears as if the negative returns in July represent a corrective measure decreasing share price to a regular level after a period of price increasing speculations about competitive bidders.

TABLE II

ABNORMAL RETURNS AROUND THREE EVENT DATES

Event-Window	January 25 Conti.	January 25 Siemens	July 25 Conti.	July 25 Siemens
[-20,20]	6.26	13.33	-0.73	-7.24
[-20,10]	4.16	10.72	2.52	-4.79
[-10,10]	4.05	6.77	-0.32	-6.76
[-5,5]	2.65	8.98	6.93	-6.26
[-1,1]	-1.92	7.59	2.43	-7.54
[-1,0]	-2.63	6.84	3.70	-4.16
[0]	-1.27	6.29	3.58	-4.76
[0,1]	-0.56	7.04	2.31	-8.14
[0,5]	0.73	9.89	3.14	-7.52
[0,10]	0.08	6.64	-4.61	-7.62
[0,20]	2.18	9.26	-7.86	-10.07

Event-Window	December 5 Conti.	December 5 Siemens
[-20,20]	4.37	27.45
[-20,10]	5.52	28.26
[-10,10]	4.47	16.05
[-5,5]	2.74	5.36
[-1,1]	4.20	5.35
[-1,0]	0.35	3.46
[0]	0.92	1.37
[0,1]	4.77	3.26
[0,5]	5.36	1.93
[0,10]	5.77	8.44
[0,20]	4.62	7.63

This table shows the cumulative abnormal returns (CAR) to Continental AG and Siemens AG around three different event dates with respect to the Continental-Siemens VDO transaction. On January 25, Continental announced its interest in acquiring a stake in Siemens VDO. On July 25, both parties agreed on the deal terms and officially announced the takeover. Regulatory approval completed the transaction on December 5. Market models are estimated by using Ordinary Least Squares (OLS) regression over a 200 trading day period starting at trading day t=-250 relative to the first public mention of the transaction on January 25.

In order to assess the long-term capital market performance of Continental, figure 3 provides an overview of Continental's long-term stock price development after July 25th, 2007. The graph contains daily return information for Continental AG, the German DAX 30 index and the Dow Jones Euro Auto & Parts index; all three time series have been indexed to 100 on the day of the deal announcement. From figure 3 it becomes apparent that Continental's total return index consistently develops worse than the comparable regional and industry indices. The figure also provides evidence that the appearance of the new takeover offer by the Schaeffler Group seems to temporarily offset the negative development on July 13th, 2008. For the purpose of this study, the derived return development is again challenged against abnormal returns in comparison to a peer-group benchmark. Therefore, long-term abnormal returns are determined as Buy-and-Hold-Abnormal-Returns (BHARs) using a character-based matching approach. This matching procedure follows the approach proposed by [38] and determines the matching firm as the firm with a market value between 70% and 130% of Continental's market value and the smallest absolute difference in market-to-book ratios.

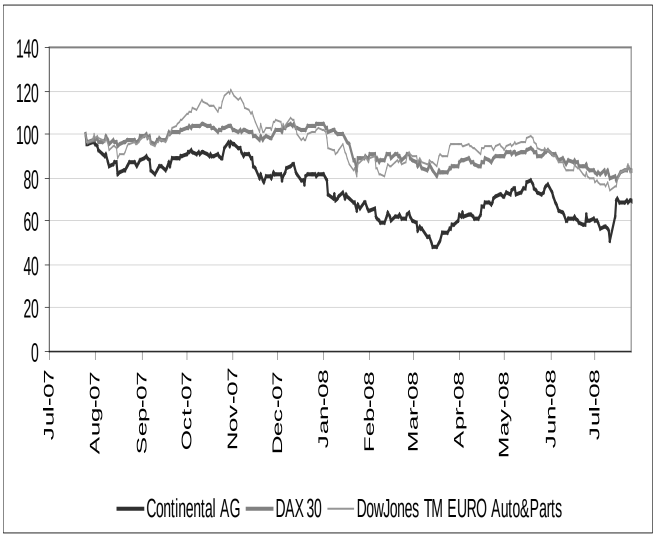

Fig. 3 Long-term Share Price Development of Continental AG

The population of potential matches originates from the 130 companies comprised in the automotive supplier portfolio applied in [11]. Based on the described matching procedure, US-based Johnson Controls represents the closest match for Continental AG. In order to extend the results from this one-on-one comparison, we have also created three additional peer groups that serve as benchmarks in the following analysis. Peer group 1 comprises all remaining competitor companies in the portfolio with a market value between 70% and 130% of Continental (Michelin, Bridgestone, Asahi Glass, and Toyota Industries Corporation). For peer group 2, the market value criterion is extended to all companies between 50% and 150% of Continental's market value at the end of June 2007. This extension adds Alcan, Eaton, PPG Industries, and Aisin Seiki to the original peer group 1. Peer Group 3 is manually constructed based on a matching product portfolio between the peers and Continental This peer group is the largest and comprises Denso Corp., Michelin, Bridgestone, Goodyear, TRW, BorgWarner, Nokian Renkaat, Cooper Tire, and Autoliv.

The single matching firm and the different peer groups represent the benchmarks in determining long-term abnormal returns to Continental, which are derived as the difference between the buy-and-hold-return of an investor in Continental and the buy-and-hold-return of an investor in the control firm or an equally-weighted portfolio of control-firms. Table 3 presents the buy-and-hold returns for Continental AG and Johnson Controls.

TABLE III

BUY-AND-HOLD ABNORMAL RETURNS TO CONTINENTAL AG

Buy-and-Hold Returns (control-firm approach), in %			
Time frame	BHR Acquirer Continental AG	BHR Peer Johnson Controls	BHAR
6 months (months -1 to 5)	-16.23	4.56	-20.79
12 months (months -1 to 11)	-10.48	-9.96	-0.52

This table shows the buy-and-hold-abnormal-returns to Continental AG following the Siemens VDO takeover. Abnormal returns are derived using a control-firm matching approach as proposed by [38], the table differentiates between 6 and 12-months holding periods.

TABLE IV

LONG-TERM ABNORMAL RETURNS TO CONTINENTAL AG – DIFFERENT APPROACHES

Abnormal Returns, in %		
Approach	6 months (months -1 to 5)	12 months (months -1 to 11)
BHAR (Single Peer)	-20.79	-0.52
BHAR (Peer Group 1)	-3.80	6.65
BHAR (Peer Group 2)	-11.38	0.80
BHAR (Peer Group 3)	-7.07	-1.62
Market Model	-13.70	6.05

This table shows abnormal returns to Continental AG following the Siemens VDO takeover subject to different methodologies and peer groups. Abnormal returns are derived using a control-firm matching approach as proposed by [38] and the standard market model as described by [34]. The table differentiates between 6 and 12-months holding periods.

This table shows the buy-and-hold-abnormal-returns to Continental AG following the Siemens VDO takeover. Abnormal returns are derived using a control-firm matching

approach as proposed by [38], the table differentiates between 6 and 12-months holding periods.

Over a 6-month holding period, an investor in Continental realizes a loss of -16.23%. In connection with the positive return to an investor in Johnson Controls, this loss corresponds to an abnormal underperformance of -20.79% (BHAR) over the six months following the VDO takeover.

However, this pattern changes for the 12-month period. As presented in table 3, Continental is able to decrease its negative returns to -10.48% in the longer time period. At the same time, the performance of the matching firm is significantly worse and falls from a positive return to -9.96%. As a result, the abnormal underperformance of Continental decreases to -0.52% and almost becomes non-existent. Consequently, it becomes apparent that Continental is not only able to improve its self-standing capital market performance but also gains ground in relation to its matching peer. Table 4 confirms that this finding remains robust against a change in peer group compilation. Across all three determined peer groups, Continental is able to reduce its abnormal underperformance from a clear negative BHAR to neglectable small negative abnormal returns. In two of the cases, Continental even realizes positive abnormal returns underlying once again its extraordinary positive return position. Table 4 also contains the results of an extended market model estimate as applied in the short-term analysis. Based on market model estimates derived in the short-term analysis, expected daily returns for the full year were compared against the actual performance of the Continental share The results are in line with the BHARs determined and yield a positive abnormal return of 6.05% (12 months).

This table shows abnormal returns to Continental AG following the Siemens VDO takeover subject to different methodologies and peer groups. Abnormal returns are derived using a control-firm matching approach as proposed by [38] and the standard market model as described by [34]. The table differentiates between 6 and 12-months holding periods.

Therefore, we conclude that at first Continental does suffer a significant underperformance as a direct reaction to the takeover. However, it is also able to quickly recover from this underperformance and offsets the negative capital market effect within a year. Over the twelve month horizon, Continental realizes an insignificant under-performance of at most -1.6%; depending on the peer group benchmark, the underperformance even disappears and turns into a positive outperformance. The extraordinary synergy potential perceived in the short-term announcement returns appears to be realized in the long-run. After takeover costs and premium are paid, capital markets perceive Continental to be able of quickly recovering and realizing the originally anticipated synergies. Given the positive short-term announcement returns and the positive trend in long-term abnormal returns, capital markets perceive the VDO takeover as a strong success and put Continental in positive position compared to its non-merging peers. The following section focuses on the long-term development of published accounting information and will provide an additional opportunity to support the positive assessment by capital markets. In addition, it will also determined in how far the positive stock returns in 2008 are already influenced by rumors about an upcoming takeover bid by the Schaeffler group.

B. Performance Analysis

While the preceding abnormal return analysis focuses on the perspective and expectations of capital markets about the takeover transaction, a performance analysis of published accounting data allows for a more detailed analysis of the realized synergies and the corresponding value creation. With its inherent focus on the past, it is not exposed to the subjective assessment of investors constantly incorporating future expectations into the stock price. Nevertheless, the quality of the derived findings depends on the quality of available published accounting information. In the Continental-Siemens-VDO-transaction, the consolidation of the external financial reporting did not take place until after the regulatory approval of the deal on December 5, 2007. Consequently, the 2007 annual report of Continental to date represents the only annual report including the financial performance of both companies. Appendix 1 provides an overview of the past annual balance sheets and income statements. It shows how the takeover of VDO significantly increases Continental total assets as well as non-current liabilities. However, the full consolidation is only evident in balance sheet items, the income statement only includes one month of combined performance. Consequently, an analysis of annual data sources remains inconclusive in assessing the long-term post-acquisition of Continental AG.

A similar size effect relates to the income sheet items. Quarterly sales increased from an average of EUR 4 billion to more than EUR 6.6 billion in the first quarter of 2008. Likewise, the cost items increased as a result of combining the two entities. However, besides this simple combination effect, the effect of realized synergies and cost efficiencies remains rudimental at this early stage after the takeover and yields mixed results. While quarterly revenues decrease slightly from the first to the second quarter 2008 despite the targeted revenue synergies, Continental is able to reduce COGS disproportionately by almost EUR 50 million. Selling and R&D expenses, on the other hand, increase and dilute a potential effect on earnings. In addition, significant increases in depreciation and interest charges due to the merger almost offset the entire size effect on the earnings items; EBIT and Net Income almost remain constant or lose compared to pre-takeover levels. However, Continental gives an indication of the general trend as it manages to slightly increase EBITDA and Net Income from the first to the second quarter.

Table 6 provides an overview of the resulting performance indicators and generally supports the previous findings concerning a size and a preliminary synergies effect. Upon consolidation of both entities, all profit-oriented performance indicators decrease as a result of increasing cost items and of the significant interest and depreciation expense associated with the transaction. The revenue-oriented indicators also decrease as they suffer from a disproportionate increase in total assets and number of employees. However, the preliminary synergies effect as evident in the indicator changes from the first to the second quarter of 2008 appears to

be more positively represented by the performance indicators. Except for the EBIT/Total Assets indicator, Continental is already able to grow all other profit-oriented indicators in 2008. The cost-income-ratio decreases slightly driven by savings in the costs of goods sold. In accordance with the original deal motivation, expenses for research and development activities slightly increase. The cost synergies in administrative functions did not become effective to date, SG&A expenses increased from 8.06% to 8.33

Although the preceding analysis has provided some evidence for the existence of a positive post-takeover performance trend, it cannot determine whether this trend originates from synergies related to the takeover or from general market conditions affecting the complete automotive supply industry. Therefore, we also analyze a peer-group adjusted set of the same performance indicators provided in table 6. For this purpose, quarterly results of all peer companies in peer group 3 have been collected from their quarterly reports and aggregated into a simple average performance.

The performance indicators of Continental have then been reduced by this performance to yield the abnormal performance attributable to the VDO takeover. Table 7 indicates how Continental consistently outperforms the peer-group benchmarks over the year preceding the takeover. Both profit- as well as revenue-oriented indicators outperform the industry by several percentage points.

Upon the consolidation with VDO, this outperformance turns into an underperformance representing the incremental efforts of the takeover such as implementation costs and additional interest expenses. However, over the following three quarters, Continental continuously develops all indicators towards benchmark levels. EBITDA/Sales already beat the benchmark in the second quarter of 2008 by more than one percentage point. It becomes apparent that Continental is able to regain relative performance quickly and could potentially outperform its peer group in the following quarters. Although the intended cost synergies of at least EUR

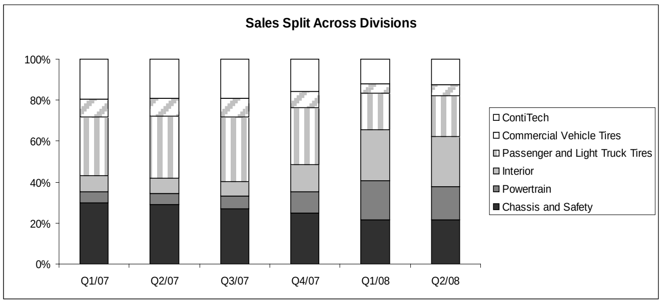

Fig. 4 Revenue Split of Continental AG across Divisions

170 million per year cannot be traced and evaluated at this early stage, the relative performance trend supports the assumptions that Continental will manage to realize the cost synergies by 2010 as presented in its original press release. From the perspective of an investor, the overall performance development is therefore positive; there are convincing indicators that the takeover was successful and remains successful in the future.

V. DISCUSSION

This case study examines the overall post-acquisition performance of the Continental-VDO deal. Earlier results were elaborated and presented by [39]. The study was inspired by [2] who made a significant contribution and asked whether bad bidders subsequently become good targets. Based on a deal sample from the 1980s, they find that firms that subsequently became takeover targets have made acquisitions significantly reducing their equity value. On the other hand, firms that did not become takeover targets have been able to substantially increase their equity value.

For discussion of our results, we would like to address our initial research questions:

Was the Continental-Siemens VDO deal successful, namely Continental a good or a bad bidder?

To answer this, we first analyzed capital market reactions. We presented strong evidence that Continental was in fact not a "bad bidder" entering into a value-reducing acquisition. Unlike the results of [2], Continental realized a positive announcement return of +3.58% on the day of the deal announcement and an additional +0.92% on the day of the regulatory deal approval. It becomes apparent that capital markets seem to appreciate the underlying synergy potentials imminent in the industry and particularly in this transaction. The results are in line with previous findings in the automotive supply industry [10]. The only outlier in this pattern is the negative announcement return determined on the day of Continental's first statement of interest in January 2007. However, these negative returns disappeared over longer event windows when the acquisition offer became more concrete. Overall, a positive short-term assessment of the value impact prevails.

Despite positive announcement returns Continental does suffer significant underperformance within six months. Nonetheless, while measured against peer benchmarks, the capital market returns of Continental are both regaining position. After 12 month, the underperformance in capital market returns had almost vanished. Moreover, Continental outperformed all benchmark firms within the time span of six to twelve months. From a capital market perspective, the question of whether Continental was a good bidder cannot be answered unambiguously. However, announcement capital market reactions as well as regains in the longer run indicate a rather successful deal.

The analysis of the available accounting information reveals a very similar impression. While Continental outperformed its benchmarks before consolidation, most performance indicators turned into underperformance after the consolidation. However, over the following three quarters, Continental continuously develops all indicators towards benchmark levels. Apparently, Continental is able to regain relative performance quickly and could potentially outperform its peer group in the following quarters.

As an overall impression, Continental was at a very healthy state when bidding and struggled shortly after the acquisition. Nonetheless, Continental’s market position in terms of share price and accounting performance recovered

TABLE V

QUARTERLY BALANCE SHEET AND INCOME STATEMENT ITEMS OF CONTINENTAL AG

Balance Sheet and Income Statement Items (in Euro mill.)	Q3/06	Q4/06	Q1/07	Q2/07	Q3/07	Q4/07	Q1/08	Q2/08
Total Assets	11,375.7	10,853.0	11,750.8	11,927.7	12,091.2	27,737.6	26,910.2	27,077.5
Equity	4,320.1	4,709.9	4,970.8	4,965.4	5,191.6	6,856.1	6,912.3	7,019.6
Non-current liabilities	2,735.7	2,156.8	2,076.6	2,040.1	2,381.3	11,668.3	11,664.9	11,665.7
Sales	3,714.4	3,941.7	3,964.8	4,049.1	3,906.6	4,698.9	6,639.4	6,614.6
Cost of Goods Sold	-2,821.0	-2,919.7	-2,964.1	-3,023.4	-2,925.5	-3,682.6	-5,252.6	-5,203.7
R&D Expenses	-185.8	-174.5	-185.2	-204.0	-187.8	-257.8	-415.2	-424.4
Selling, Admin. & Other Exp.	-314.7	-372.8	-389.0	-352.1	-372.7	-424.7	-535.3	-551.0
EBITDA	572.4	696.1	613.6	650.0	605.5	621.5	884.0	890.8
Depreciation/Amortization	-178.3	-210.3	-176.8	-175.3	-179.4	-283.3	-427.3	-435.1
EBIT	394.1	485.8	436.8	474.7	426.1	338.2	456.7	455.7
Net Income	240.8	326.7	277.3	308.2	258.2	206.2	179.9	206.3
Operating Cash Flow	159.8	699.0	66.6	279.3	364.8	1,202.9	19.1	617.1
Free Cash Flow	-659.4	361.0	-119.8	104.3	77.1	-10,687.2	-316.7	469.5
# Employees	84,561	85,224	87,284	89,082	89,375	151,654	153,587	149,113

Source: Quarterly Reports

TABLE VI

QUARTERLY PERFORMANCE INDICATORS OF CONTINENTAL AG - UNADJUSTED

	Q3/06	Q4/06	Q1/07	Q2/07	Q3/07	Q4/07	Q1/08	Q2/08
Profit-oriented Perfomance Indicators (in %)								
EBITDA/Total Assets	5.03	6.41	5.22	5.45	5.01	2.24	3.28	3.29
EBITDA/Sales	15.41	17.66	15.48	16.05	15.50	13.23	13.31	13.47
EBIT/Total Assets	3.46	4.48	3.72	3.98	3.52	1.22	1.70	1.68
EBIT/Sales	10.61	12.32	11.02	11.72	10.91	7.20	6.88	6.89
Net Income/Total Assets	2.12	3.01	2.36	2.58	2.14	0.74	0.67	0.76
Net Income/Sales	6.48	8.29	6.99	7.61	6.61	4.39	2.71	3.12
OperatingCF/Total Assets	1.40	6.44	0.57	2.34	3.02	4.34	0.07	2.28
OperatingCF/Sales	4.30	17.73	1.68	6.90	9.34	25.60	0.29	9.33
CostIncomeRatio	89.42	87.96	89.24	88.40	89.23	92.90	93.43	93.42
-COGS/Sales	75.95	74.07	74.76	74.67	74.89	78.37	79.11	78.67
-R&D Expenses/Sales	5.00	4.43	4.67	5.04	4.81	5.49	6.25	6.42
-Selling Expenses/Sales	8.47	9.46	9.81	8.70	9.54	9.04	8.06	8.33
Revenue-oriented Performance Indicators (in %)								
Sales/Total Assets (in %)	32.65	36.32	33.74	33.95	32.31	16.94	24.67	24.43
Sales/Employee (in EUR)	43926	46251	45424	45454	43710	30984	43229	44360
Balance-Sheet Structure (in %)								
Equity/Total Assets	37.98	43.40	42.30	41.63	42.94	24.72	25.69	25.92
Debt/Equity-Ratio	163.32	130.43	136.40	140.22	132.90	304.57	289.31	285.74

TABLE VII

QUARTERLY PERFORMANCE INDICATORS OF CONTINENTAL AG – PEER-GROUP ADJUSTED

	Q3/06	Q4/06	Q1/07	Q2/07	Q3/07	Q4/07	Q1/08	Q2/08
Profit-oriented Perfomance Indicators								
EBITDA/Total Assets	2.44	3.50	2.28	2.06	1.40	-1.88	-0.06	-0.01
EBITDA/Sales	4.67	7.81	4.15	3.20	1.65	-0.84	0.81	1.08
EBIT/Total Assets	2.14	2.88	2.08	1.85	1.18	-1.57	-0.30	-0.28
EBIT/Sales	4.79	7.35	4.50	3.45	1.78	-2.29	-0.80	-0.74
Net Income/Total Assets	1.32	2.01	1.51	1.25	0.44	-1.02	-0.67	-0.44
Net Income/Sales	2.79	5.34	3.45	2.29	0.01	-1.57	-2.55	-1.67
OperatingCF/Total Assets	1.20	-0.14	0.94	-0.23	2.09	-3.87	0.14	2.00
OperatingCF/Sales	4.74	-4.36	4.32	-1.96	7.38	-1.71	1.51	8.89
CostIncomeRatio	-4.29	-5.17	-3.54	-3.15	-2.84	2.46	1.19	1.10
-COGS/Sales	-3.98	-5.69	-4.16	-2.80	-4.20	1.03	0.49	0.29
-R&D Expenses/Sales	0.64	0.28	0.52	1.03	0.70	1.87	2.30	2.64
-Selling Expenses/Sales	-4.09	-2.60	-2.88	-4.03	-2.36	-2.91	-4.42	-4.31
Revenue-oriented Performance Indicators								
Sales/Total Assets (in %)	6.21	8.84	6.27	6.01	5.06	-12.46	-3.54	-4.10
Sales/Employee (in EUR)	-3060	-6195	-2368	-7315	-4230	-24946	-4827	-7909
Balance-Sheet Structure (in %)								
Equity/Total Assets	2.97	9.24	7.43	7.15	6.58	-13.65	-15.02	-13.05
Debt/Equity-Ratio	-34.14	-54.95	-43.30	-43.48	-38.75	143.43	144.05	129.71

quickly. While [12] predict a rather positive performance of the M&A deal in the long run, there were significant equity losses in the short and medium run which suggest that Continental was a bad [2]. However, [2] do not provide a concrete time span for god or bad bidders. This raises the question of whether timing for equity losses needs to be clearly defined and directly leads to our second research question.

Does the transaction help to enhance current prediction theory on M&A success factors?

This case study focused on performance measures to decide whether Continental was a good or a bad bidder. However, the study is a good example for performance changes over time. In literature the time span which is relevant for an equity loss which could be punished by the markets is not defined. [2] who introduced the idea of bad bidders punished by the markets do not suggest a relevant time frame. Moreover, they rely on market announcement reactions only. In contrast, [6] specify a relevant time span of 5 years for possible CEO turnovers. While Continental focused on quickly realizing synergies, the few months between consolidation of VDO and the takeover bid by Schaeffler did not suffice to benefit from the first synergies and thereby recover from integration charges. Although Continental was on the best way to reach market levels again, Schaeffler's hostile bid arrived as Continental was still below or exactly at market levels both in terms of share price and accounting performance. While Schaeffler could not have afforded to acquire Continental during its performance peak before July 2007, chances exist that substantially higher acquisition efforts would have been required to acquire Continental after it had regained its strengths at some point in 2009. Financial instruments in form of the Cash Settled Equity derivatives allowed Schaeffler Group to react rapidly and to initiate a hostile sneak takeover. On the one hand this observation supports the idea of a market which is able to punish equity losses very quickly and efficiently. On the other, it raises the question of whether even good acquisitions could turn into risky deals when performance slows down even for short time periods.

VI. CONCLUSION

In summary, our results suggest that timing plays a very important role when entering the good/bad bidder discussion. Theory, however, does not suggest concrete time frames which need to be observed. Our results suggest that underperformance, even for short periods, is not advisable. Schaeffer's takeover attempt gives this case additional explosive power which also questions notification requirements of certain financial instruments.

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The concept of distinguishing between different supplier tiers relates back to the pyramid-shaped supply chains developed mainly in the Japanese automotive industry. First-tier suppliers deliver sub-assembled units (e.g. complete seats or transmissions) to OEMs. Lower-tier suppliers deliver components for the sub-assembled units to first-tier suppliers. Consequently, manufacturers are able to reduce their direct

relations to a few first-tier suppliers while the suppliers coordinate themselves down the supply chain [14] F. von Corswant, et al., "In Chains? Automotive Suppliers and Their Product Development Activities," ERIM Report Series, Working Paper April 2003, 2003. ,[15] T. Fujimoto, "The Japanese Automobile Parts Supplier System: the Triplet of Effective Inter-firm Routines " International Journal of Automotive Technology and Management, vol. 1, pp. 1-34, 2001.

The following description of Continental's corporate history is based on [19] Continental. (2008, August 1). Continental: 136 Years of Safe Mobility. Available: http://www.conti-online.com/generator/www/com/en/continental/portal/themes/press_services/acq/download/day1_continental_history_en.doc.

The gearing ratio is defined as net indebtness divided by total equity.

Other business units of Siemens AG at the time included, for example, Power Transmission (PT), Power Generation (PG), Medical Solutions (Med), and Industrial Solutions and Services (I&S).

VDO as a part of Siemens AG was not publicly traded at the time of the takeover. Thus, only Siemens AGshare prices could be observed. However, with a deal size of 11.8 billion there was no comparable event around the event dates.

See, e.g., Mentz and Schiereck (2008), [10] M. Mentz and D. Schiereck, "Cross-border Mergers and the Cross-border Effect: The Case of the Automotive Supply Industry," Review of Managerial Science, vol. 2, pp. 199-218, 2008.

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